

VISUAL ASSESSMENT of SMALL (WADEABLE) STREAMS

Look at the stream and surrounding area for 50 yds. upstream and 50 yds. downstream of your sampling site.

Put an “X” directly over the best response to each assessment factor.

ASSESSMENT FACTOR	RESPONSE			
	EXCELLENT	GOOD	MARGINAL	POOR
1. Instream cover (habitat for fish & aquatic organisms)	The stream contains lots of boulders (over 10”), cobble (2-10”), submerged logs, undercut banks or other stable habitat	There is adequate habitat of both rock & wood for maintenance of diverse populations of fish & bugs	Some rock and wood or other stable habitat, but much less than desirable	Not much stable habitat; lack of habitat is obvious
2. Fine particle sediments (sand, silt, mud)	The rocks in the stream are not surrounded by fine sediments; I see very little sand, silt, or mud on the bottom	Rocks are partly surrounded by fine sediments; I could easily flip over the rocks on the bottom	Rocks are more than half surrounded by fine sediments; rocks are firmly stuck into sediments	Rocks are deeply stuck into fine sediments; bottom is mostly sand, silt, or mud
3. “Flow patterns”: How many does the stream have?	All 4 of these velocity/depth patterns are present within 50 yards upstream or downstream of this site: slow/deep, slow/shallow, fast/deep, fast/shallow	Only 3 of 4 regimes (flow patterns) are present	Only 2 of the 4 regimes present	Dominated by one velocity/depth regime
4. Condition of banks & coverage? (If the two banks are very different, assess the worse side, if possible)	The banks are stable; no evidence of erosion or bank failure; the whole bank is covered with vegetation or rock	Moderately stable; some small areas of erosion mostly healed over; most of the bank is covered by vegetation or rock	Largely unstable; almost half of the bank has areas of erosion or is NOT covered by vegetation or rock	Unstable; eroded areas; “raw” areas occur frequently; less than half of the bank is covered by vegetation or rock
5. Disruptive pressures to the “riparian” area? (If the two banks are very different, assess the worse side, if possible)	Trees, shrubs, or grasses have not been disturbed through forestry, grazing or mowing; almost all plants are growing naturally; mature trees, understory, and vegetation are present	Some disruption, but not affecting full plant growth potential to any great extent; trees, woody plants, and soft green plants are dominant	Disruption is obvious; some patches of bare soil, cultivated fields or closely cropped vegetation are the norm	There is not much natural vegetation left or it has been removed to 3 inches or less in average stubble height
6. Riparian vegetative zone width (If the two banks are very different, assess the worse side, if possible)	Riparian zone is more than 35 yards wide; human activities (parking lots, roads, clearcuts, lawns, or crops) have not impacted zone	Riparian zone 12-35 yards wide; human activities have impacted zone only minimally	Width of riparian zone 6-12 yards; human activities impacting zone are commonly evident	Width of riparian zone is less than 6 yards; lots of nearby human activities
7. Litter	There is no litter in the area	There is very little litter in the area; probably some degradable paper accidentally dropped by fishermen or hikers	Litter is fairly common and includes metal or plastic, obviously purposely dropped.	Area is a candidate for a clean-up project; lots of litter, dumping, tires, or barrels present
8. Overall I rate the VISUAL ASSESSMENT of this site ...	EXCELLENT	GOOD	MARGINAL	POOR

DEFINITIONS:

Riparian zone - The land connected with or immediately adjacent to the banks of a stream or other body of water.

Disruptive pressure - Any activities which interfere with the natural unity of a system. In the case of riparian assessment, this usually refers to land use practices such as mowing, grazing, logging, paving, building construction, heavily worn paths, etc.

Habitat - The “places” where a plant or animal normally lives and grows throughout all the phases of its life cycle.

Stable Habitat - The condition in which places used for hiding, resting, reproducing, living, and growing are not undergoing rapid or constant change. In the case of stream assessment, this is usually referring to large rocks, logs, and undercut banks which are more or less permanently in place.

The DRBC and several organizations originally conceived the WATER SNAPSHOT project in 1996. DRBC leads the annual effort, with the valuable assistance of a committee consisting of representatives from the following organizations: Del. Dept. of Natural Resources and Environmental Control, Delaware Riverkeeper Network, Delaware Estuary Program, National Park Service, N.J. Dept. of Environmental Protection, N.Y. State Dept. of Environmental Conservation, Pa. Dept. of Conservation and Natural Resources, Pa. Dept. of Environmental Protection, Pennsylvania Environmental Council, Pocono Environmental Education Center, Upper Delaware Council, U.S. Environmental Protection Agency, and U.S. Geological Survey.